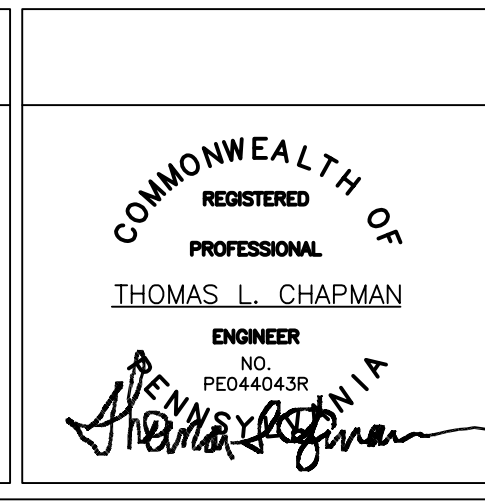


three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

0:\va992_DAX1\0499-0029_Huntington_WV_Renovate_Surgical_Service_and_Operating_Rooms\2_Drawings\1_Coord\1_Current_Submittal_Phase\6_Mech\6.01 - Schedules.dwg 10-31-14 04:24:32 PM msmith

NO.	DESCRIPTION	DATE

CONSULTANTS:



ARCHITECT / ENGINEERS:

Miller-Remick LLC
M.E.P. & Structural Engineering
A Service Disabled Veteran Owned Small Business
1010 KINGS HIGHWAY SOUTH
CHERRY HILL, NEW JERSEY 08034
PHONE: (856)420-4000
FAX: (856)420-5002

SDVOSB
Small Business
Veteran Owned
Service Disabled

PF&A DESIGN
ARCHITECTURE, PLANNING, INTERIORS
West Trade Center
101 West Main Street, Suite 7000
Norfolk, VA 23510
Phone: 757-471-6837
Fax: 757-471-4508
www.pf-a-architect.com

Drawing Title MECHANICAL SCHEDULES	Project Title RENOVATE SURGICAL SERVICE & UPGRADE OPERATING ROOMS
Approved: Medical Center Director	Location HUNTINGTON, WV
	Date 10.31.2014
	Checked MPP
	Drawn JLR

Project Number 581-13-101	Drawing Number M6.01
Building Number 1S	Dwg.073 of 178

Office of
Construction
and Facilities
Management

Department of
Veterans Affairs

PENTHOUSE EQUIPMENT MODULE (PEM) AIR HANDLING UNIT SCHEDULE																					
MARK	LOCATION	AREA AND/OR BLDG SERVED	TYPE	AIR FLOW	AIR FLOW			SUPPLY FAN MARKS	RETURN / RELIEF FAN MARK	EXHAUST FAN MARK	PREFILTER MARK	SECONDARY FILTER MARK	FINAL FILTER MARK	HEAT RECOVERY COIL MARK	PREHEAT COIL MARK	COOLING COIL MARK	REHEAT COIL	HUMIDIFIER MARK	BASIS OF DESIGN (OR APPROVED EQUAL)	REMARKS	TOTAL OPERATING WEIGHT
					SUPPLY	MIN OA	RETURN/RELIEF														
					CFM	CFM	CFM														
1S-AC-16	ROOFTOP PEM	1S NEW 3RD FLR SURGICAL SUITE	CUSTOM	CONSTANT AIRFLOW VOLUME WITH OCC/UNOCC AND SMOKE PURGE MODES	28000	6000	25000	1S-SF-16A, 16B	1S-RF-16A, 16B	-	1S-PF-16A	1S-PF-16B	1S-FF-16	---	1S-PHC-16	1S-CC-16A, 16B, 16C, 16D	1S-RHC-XX	1S-HU-16	SCOTT SPRINGFIELD MFG	AHU IS LOCATED WITHIN CUSTOM PENTHOUSE EQUIPMENT MODULE (PEM)	100,000 LBS
NOTES: 1. BASIS OF DESIGN INDICATED FOR REFERENCE OF QUALITY AND PERFORMANCE. REFER TO INDIVIDUAL COMPONENT SCHEDULES AND DRAWING M5.05 FOR ADDITIONAL INFORMATION. SUBMIT EQUIVALENT PRODUCTS AND MANUFACTURERS (EAS, TMI CLIMATE SOLUTIONS) FOR REVIEW AS REQUIRED BY SPECIFICATIONS. 2. MOUNT AIR HANDLING UNITS WITHIN PENTHOUSE EQUIPMENT MODULE. MOUNT PEM ON MINIMUM 14-INCH HIGH PREFABRICATED INSULATED ROOF CURB. COORDINATE ROOF CURB TO ADEQUATELY SUPPORT ALL PEM & AHU SECTIONS, COMPONENTS, ETC. IN ACCORDANCE WITH FINAL PEM& AHU APPROVED SUBMITTAL. 3. COORDINATE PEM AND AHU MOUNTING ON ROOFTOP CURB TO ALLOW BOTTOM SUPPLY AND RETURN DUCT CONNECTIONS. PIPING CONNECTIONS (CHILLED WATER, STEAM, STEAM CONDENSATE, MAKE-UP WATER, DRAINAGE), AND CONDUIT CONNECTIONS (ELECTRICAL POWER, BAS CONTROLS, ETC.) UP THROUGH CURB/ROOF FROM SURGICAL SUITE BELOW UNIT FOOTPRINT. DUCT PENETRATIONS SHALL INCLUDE 2-HOUR FIRE DAMPER AT FLOOR OF PEM WITH RATED ENCLOSURES AROUND DUCT DROPS THROUGH PEM BASE/BASE RAIL DEPTH. 4. REFER TO PLANS, DIAGRAMS, DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. INTENT IS FOR AHU TO BE INTEGRAL TO PEM WITH NEW HEATING HOT WATER (REHEAT) SKID, RETURN/RELIEF FANS, SUPPLY & RETURN DUCTWORK, AIRFLOW CONTROL VALVES, SOUND ATTENUATION, CONTROL DAMPERS, CONTROL VALVES AND ALL ASSOCIATED BAS CONTROLLERS AND COMPONENTS. PEM TO BE FACTORY FABRICATED AND TESTED/VERIFIED AS A COORDINATED PIECE OF EQUIPMENT.																					

FAN SCHEDULE																													
MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	AIR FLOW	TSP	FAN										MOTOR ELECTRICAL										CONTROL SEQUENCE	FAN BASIS OF DESIGN (OR APPROVED EQUAL)	REMARKS	OPERATING WEIGHT
						TYPE	WHEEL	CLASS	ARRANGEMENT, ROTATION, AND DISCHARGE	AIRFLOW MEASUREMENT	DIAMETER	MIN % EFF	DRIVE	FAN MAX RPM	NOMINAL HORSEPOWER	PHASE	HZ	VOLT	RPM	TYPE	EFFICIENCY	EMERGENCY POWER	SPEED CONTROL						
				CFM	IN																			BHP	HP				
1S-SF-16A	BLDG 1S ROOFTOP PEM, AC-16	1S 3RD FLR SURGERY SUITE	1S-AC-16 - SUPPLY	14000	8	PLENUM	AF-PLN	III	ARR 4 __, HOR	PIEZO	30	73%	DIRECT	2291	23.8	30	3	60	460	1800	TEFC	PREMIUM	Y	VFD	SEE CONTROL DIAGRAMS	TWIN CITY - EPON - WITH INTEGRAL INLET BACKDRAFT DAMPER	COORD ROTATION FOR SIDE BY SIDE OPTERTION IN AHU PLENUM	SEE PEM SCHED	
1S-SF-16B	BLDG 1S ROOFTOP PEM, AC-16	1S 3RD FLR SURGERY SUITE	1S-AC-16 - SUPPLY	14000	8	PLENUM	AF-PLN	III	ARR 4 __, HOR	PIEZO	30	73%	DIRECT	2291	23.8	30	3	60	460	1800	TEFC	PREMIUM	Y	VFD	SEE CONTROL DIAGRAMS	TWIN CITY - EPON - WITH INTEGRAL INLET BACKDRAFT DAMPER	COORD ROTATION FOR SIDE BY SIDE OPTERTION IN AHU PLENUM	SEE PEM SCHED	
1S-RF-16A	BLDG 1S 3RD FLR ROOFTOP PEM	1S 3RD FLR SURGERY SUITE	1S-AC-16 - RETURN	12500	4	MIXED FLOW	-	II	ARR 9, CW, HCH - MOTOR POSITION "C"	PIEZO	24	74%	BELT	2165	12.4	15	3	60	460	1800	TEFC	PREMIUM	Y	VFD	SEE CONTROL DIAGRAMS	TWIN CITY - QSLSH	RATED FOR SMOKE PURGE	SEE PEM SCHED	
1S-RF-16A	BLDG 1S 3RD FLR ROOFTOP PEM	1S 3RD FLR SURGERY SUITE	1S-AC-16 - RETURN	12500	4	MIXED FLOW	-	II	ARR 9, CW, HCH - MOTOR POSITION "C"	PIEZO	24	74%	BELT	2165	12.4	15	3	60	460	1800	TEFC	PREMIUM	Y	VFD	SEE CONTROL DIAGRAMS	TWIN CITY - QSLSH	RATED FOR SMOKE PURGE	SEE PEM SCHED	
1S-EF-19	BLDG 1S 3RD FLR ROOF	1S 3RD FLR SURGICAL LOCKERS/LOUNGE	1S-AC-09 EXHAUST	2500	2.5	INLINE CENTR UB	-	-	UPBLAST	-	-	-	BELT	-	2.6	3	3	60	460	1725	TEFC	PREMIUM	-	VFD	SEE CONTROL DIAGRAMS	GREENHECK - TCBRU	ROOF FAN, NOT PART OF PEM	250	
1S-EF-20	BLDG 1S 3RD FLR ROOF	1S 3RD FLR GAS STORAGE ROOM	1S-AC-09 EXHAUST	300	1	CENTR UB	-	-	UPBLAST	-	-	-	DIRECT	-	0.13	0.25	1	60	115	1725	VARI-GREEN EC	PREMIUM	Y	EC	SEE CONTROL DIAGRAMS	GREENHECK - CUE	ROOF FAN, NOT PART OF PEM	70	
NOTES: 1. BASIS OF DESIGN INDICATED FOR REFERENCE OF QUALITY AND PERFORMANCE. SUBMIT EQUIVALENT PRODUCTS AND MANUFACTURERS FOR REVIEW AS REQUIRED BY SPECIFICATIONS. 2. AIRFLOW MEASUREMENT INTEGRAL TO FANS AS SCHEDULED. COORDINATE WIRING AND MONITORING WITH CONTROLS CONTRACTOR. 3. PEM / AHU COMPONENTS TO BE CONTROLLED BY FACTORY INSTALLED/WIRED ON-BOARD AHU CONTROLLER, VARIABLE FREQUENCY DRIVES, SENSORS, ETC. AS SPECIFIED. COORDINATE PEM/AHU CONTROLS SYSTEM INTEGRATION FOR PROPER START/STOP CONTROL, MONITORING/ALARMING OF CONTROL POINTS WITH CONTROLS CONTRACTOR. 4. PROVIDE EF-19 WITH ALUMINUM HOUSING, UPBLAST OUTLET GUARD, SPARE SET OF BELTS, MINIMUM 18" HIGH MOUNTING CURB WITH INTEGRAL BACKDRAFT DAMPER, LOCAL DISCONNECT MOUNTED ON UNISTRUT FRAME AT FAN ON ROOF. REFER TO ELECTRICAL DRAWINGS FOR MORE INFO. 5. PROVIDE EF-20 WITH ALUMINUM HOUSING, ALUMINUM BIRDSCREEN, CLEAN-OUT PORT, HINGED BASE, MINIMUM 18" HIGH MOUNTING CURB WITH INTEGRAL BACKDRAFT DAMPER, CURB SEAL, VARI-GREEN 24V TRANSFORMER, VAR-GREEN REMOTE SPEED CONTROL DIAL, LOCAL COMBINATION STARTER-DISCONNECT MOUNTED ON UNISTRUT FRAME AT FAN ON ROOF. REFER TO ELECTRICAL DRAWINGS FOR MORE INFO. COORDINATE BAS MONITORING OF FAN STATUS. 6. REFER TO PLANS, DETAILS, SPECIFICATIONS AND CONTROL DIAGRAMS FOR ADDITIONAL INFORMATION REGARDING SURGERY ADMIN AREA AIR HANDLING UNIT ASSEMBLY.																													

CHILLED WATER COOLING COIL SCHEDULE																						
MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	APPLICATION	TOTAL AIR FLOW	MAX FACE VELOCITY	APD	EAT		LAT		TOTAL CAPACITY	SENSIBLE CAPACITY	WATER						BASIS OF DESIGN (OR APPROVED EQUAL)	REMARKS	
					DB	WB		DB	WB	FLOW	GLY			GLY VOL	EWI	LWT	WPD					
					CFM	FPM	IN WG	°F	°F	°F	°F	MBH	MBH	GPM	TYPE	%	°F	°F	FT			
1S-CC-16A, 16B, 16C, 16D	BLDG 1S ROOFTOP PEM, AC-16	1S 3RD FLR SURGERY SUITE	1S-AC-16	AHU COOLING / DEHUMIDIFICATION	28,000	480	1.0	75.4	63	50	49.7	1725	761	285	N/A	N/A	43	55	26	AEROFIN	STAINLESS STEEL CASING	
NOTES: 1. COOLING COIL FIN SPACING SHALL NOT EXCEED 132 FINS PER FOOT. COPPER FINS - SEE SPEC.																						

STEAM HUMIDIFIER SCHEDULE																								
MARK	LOCATION	AREA AND/OR ROOM SERVED	SYSTEM	HUMIDIFIER TYPE	AIR FLOW	# OF MANIFOLDS	OAT		EAT		LAT		SPACE DESIGN			STEAM						CONTROL TYPE	BASIS OF DESIGN (OR APPROVED EQUAL)	REMARKS
							Db	RH	Db	RH	Db	RH	DEWPOINT	Db	RH	SOURCE	PRESS ENT CONTRL VALVE	PRESS ENT HUMIDIFIER	MAX. ABS. DISTANCE	STEAM LOAD	MAX FLOW			
							°F	%	°F	%	°F	%	°F	°F	%	PLANT / CLEAN	PSIG	PSIG	INCHES	LBS/HR	LBS/HR			
1S-HU-16	BLDG 1S ROOFTOP PEM, AC-16	1S 3RD FLR SURGERY SUITE	1S-AC-16	DISPERSION	28000	COORD	0	25	49.4	3	50	64	38.3	70	25	PLANT	10	5	9	129.3	150	DDC	DRISTEEM ULTRASORB LV	INSULATED TUBES
NOTES: 1. BASIS OF DESIGN INDICATED FOR REFERENCE OF QUALITY AND PERFORMANCE. SUBMIT EQUIVALENT PRODUCTS AND MANUFACTURERS FOR REVIEW AS REQUIRED BY SPECIFICATIONS. HUMIDIFIER DISPERSION PANEL MUST BE COORDINATED TO FIT WITHIN AHU AIR TUNNEL. 2. HUMIDIFIER MATERIAL OF CONSTRUCTION, SAFING PANELS AROUND PANEL AND ASSOCIATED ELEMENTS EXPOSED TO AHU AIRSTREAM FROM HUMIDIFIER SECTION TO DISCHARGE PLENUM SHALL BE 304 STAINLESS STEEL. MOUNT HUMIDIFIER WITHIN AHU AT APPROPRIATE HEIGHT TO ENSURE PROPER STEAM CONDENSATE TRAPPING. 3. COORDINATE INSTALLATION AND WIRING OF HUMIDIFICATION HIGH LIMIT SWITCH WITHIN 10'-0" OF AHU HUMIDIFIER DISPERSION PANEL IN FIELD. COORDINATE ALL FACTORY & FIELD WIRED AHU CONTROLS IN ACCORDANCE WITH PLANS, DETAILS, SPECIFICATIONS, CONTROL DIAGRAMS AND SEQUENCE OF OPERATION.																								

VERICAL INTEGRAL FACE AND BYPASS STEAM HEATING COIL SCHEDULE																	
MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	APPLICATION	AIR FLOW	MAX FACE VELOCITY	APD	TEMPERATURES		TOTAL MIN CAPACITY	STEAM			BASIS OF DESIGN (OR APPROVED EQUAL)	REMARKS		
					CFM	FPM		IN WG	°F		°F	MBH	ENT CONT VALVE			ENT COIL	FLOW
									PSIG		PSIG		LBS/HR				
1S-PHC-16	BLDG 1S ROOFTOP PEM, AC-16	1S 3RD FLR SURGERY SUITE	1S-AC-16	AHU PREHEAT	28000	679	0.27	0	50	1,510	10	5	1600	AEROFIN VIFB	SS COIL CASING, COPPER FINS		
NOTES: 1. BASIS OF DESIGN INDICATED FOR REFERENCE OF QUALITY AND PERFORMANCE. SUBMIT EQUIVALENT PRODUCTS AND MANUFACTURERS FOR REVIEW AS REQUIRED BY SPECIFICATIONS. 2. COIL SHALL BE MOUNTED WITHIN EACH AHU ABOVE FLOOR AS HIGH AS POSSIBLE TO ENSURE PROPER STEAM CONDENSATE TRAPPING. REFER TO DWGS, DETAILS, SPECIFICATIONS AND CONTROLS DIAGRAMS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.																	

100% CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

three inches = one foot

one and one half inches = one foot

one inch = one foot

three quarters inch = one foot

one half inch = one foot

three eighths inch = one foot

one quarter inch = one foot

one eighth inch = one foot

SINGLE DUCT AIRFLOW CONTROL VALVE SCHEDULE																												
MARK	LOCATION	AREA AND/OR RM SERVED	PHASE	SYSTEM AIR HANDLING	SIZE (DIMS., DIA.)	AIR FLOW			ADDITIONAL SOUND ATTENUATION REQUIRED	CONTROL TYPE	CONTROL SEQUENCE	DUCT-MOUNTED REHEAT COIL (BASIS OF DESIGN: PRECISION COILS OR APPROVED EQUAL)													RADIANT PERIMETER CEILING HEAT	BASIS OF DESIGN (OR APPROVED EQUAL)	REMARKS	
						OCC / MAX	UNOCC / MIN	OR SMOKE PURGE				RHC MARK	RHC AIRFLOW CFM	MBH	HW (GPM)	ENTERING WATER TEMP	LEAVING WATER TEMP	ENTERING AIR TEMP	LEAVING AIR TEMP (MAX 95 DEG F)	MAX. AIR PD	MAX. WATER SIDE PD	NO. OF ROWS OF COILS	COIL DIMENSION					MAX FPI
																							WIDTH (IN)	HEIGHT (IN)				
1S-SAV-16-001	3RD FLOOR ROOF - PEM	OR #1 - RM 3B-135	2	1S-AC-16 / RF-16	12x24	2,500	1,250	2,100	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	1-HWC-001	2500	107	10.7	180	160	55	93.3	0.67	8.2	2	24	12	8	-	ACCUVALVE	RM PRESSURE MONITORS
1S-RAV-16-001	3RD FLOOR ROOF - PEM	OR #1 - RM 3B-135	2	1S-AC-16 / RF-16	12x24	2,100	850	2,100	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ACCUVALVE	RM PRESSURE MONITORS
1S-SAV-16-002	3RD FLOOR ROOF - PEM	OR #2 (CYSTO) - RM 3B-137	2	1S-AC-16 / RF-16	12x18	2,000	1,000	1,600	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	1-HWC-002	2000	86	8.8	180	160	55	93.5	0.62	5.1	2	20	12	8	-	ACCUVALVE	RM PRESSURE MONITORS
1S-RAV-16-002	3RD FLOOR ROOF - PEM	OR #2 (CYSTO) - RM 3B-137	2	1S-AC-16 / RF-16	14	1,600	600	1,600	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ACCUVALVE	RM PRESSURE MONITORS
1S-SAV-16-003	3RD FLOOR ROOF - PEM	OR #3 - RM 3B-139	2	1S-AC-16 / RF-16	12x24	2,500	1,250	2,100	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	1-HWC-003	2500	107	10.7	180	160	55	93.3	0.67	8.2	2	24	12	8	-	ACCUVALVE	RM PRESSURE MONITORS
1S-RAV-16-003	3RD FLOOR ROOF - PEM	OR #3 - RM 3B-139	2	1S-AC-16 / RF-16	12x24	2,100	850	2,100	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ACCUVALVE	RM PRESSURE MONITORS
1S-SAV-16-004	3RD FLOOR ROOF - PEM	OR #4 - RM 3B-141	3	1S-AC-16 / RF-16	12x24	2,500	1,250	2,100	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	1-HWC-004	2500	107	10.7	180	160	55	93.3	0.67	8.2	2	24	12	8	-	ACCUVALVE	RM PRESSURE MONITORS
1S-RAV-16-004	3RD FLOOR ROOF - PEM	OR #4 - RM 3B-141	3	1S-AC-16 / RF-16	12x24	2,100	850	2,100	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ACCUVALVE	RM PRESSURE MONITORS
1S-SAV-16-005	3RD FLOOR ROOF - PEM	OR #5 (FUTURE HYBRID) - RM 3B-143	3	1S-AC-16 / RF-16	12x48	4,500	2,250	4,100	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	1-HWC-005	4500	188	19.3	180	160	55	92.5	0.56	4.8	2	48	12	8	-	ACCUVALVE	RM PRESSURE MONITORS
1S-RAV-16-005	3RD FLOOR ROOF - PEM	OR #5 (FUTURE HYBRID) - RM 3B-143	3	1S-AC-16 / RF-16	12x36	4,100	1,850	4,100	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ACCUVALVE	RM PRESSURE MONITORS
1S-SAV-16-006	3RD FLOOR ROOF - PEM	OR #6 (ORTHO) - RM 3B-136	4A	1S-AC-16 / RF-16	12x36	3,700	1,850	3,100	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	1-HWC-006	3700	155	15.9	180	160	55	92.6	0.65	6.4	2	36	12	8	-	ACCUVALVE	RM PRESSURE MONITORS
1S-RAV-16-006	3RD FLOOR ROOF - PEM	OR #6 (ORTHO) - RM 3B-136	4A	1S-AC-16 / RF-16	12x36	3,100	1,250	3,100	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ACCUVALVE	RM PRESSURE MONITORS
1S-SAV-16-007	3RD FLOOR ROOF - PEM	CONTROL (OR #5-FTR HYBRID) - RM 3B-144	3	1S-AC-16 / RF-16	8	350	200	250	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	1-HWC-007	350	16	1.6	180	160	55	95	0.38	0.9	2	8	8	8	-	ACCUVALVE	RM PRESSURE MONITORS
1S-RAV-16-007	3RD FLOOR ROOF - PEM	CONTROL (OR #5-FTR HYBRID) - RM 3B-144	3	1S-AC-16 / RF-16	8	250	100	250	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ACCUVALVE	RM PRESSURE MONITORS
1S-SAV-16-008	3RD FLOOR ROOF - PEM	OR SUPPLIES - 3B-135A-141A / VEST-C3-10A	2	1S-AC-16 / RF-16	12	1,150	750	1,150	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	1-HWC-008	1150	51	5.2	180	160	55	94.8	0.58	10.8	2	12	12	8	-	ACCUVALVE	-
1S-RAV-16-008	3RD FLOOR ROOF - PEM	OR SUPPLIES - 3B-135A - 141A	2	1S-AC-16 / RF-16	14	1,750	1,350	1,300	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ACCUVALVE	-
1S-SAV-16-009	3RD FLOOR ROOF - PEM	SEMI-RESTRICTED CORRIDOR - C3-10	2	1S-AC-16 / RF-16	12x24	2,150	1,100	2,150	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	1-HWC-009	2150	97	9.9	180	160	55	95.3	0.4	5.3	2	18	18	8	-	ACCUVALVE	-
1S-RAV-16-009	3RD FLOOR ROOF - PEM	SEMI-RESTRICTED CORRIDOR - C3-10	2	1S-AC-16 / RF-16	12x36	3,050	1,700	2,300	SEE SPECS, PEM	DDC-2	CV, OCC/UNOC, SMOKE PURGE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ACCUVALVE	-
1S-SAV-16-010A	3RD FLOOR ROOF - PEM	PEM VENTILATION	2	1S-AC-16	10	650	350	650	SEE SPECS, PEM	DDC-5	VAV	1-HWC-010A	650	27	2.8	180	160	55	92.6	0.59	2.6	2	9	9	8	-	ACCUVALVE	COOLING/BACK-UP HEAT FOR PEM SVC AREAS
1S-SAV-16-010B	3RD FLOOR ROOF - PEM	PEM VENTILATION	2	1S-AC-16	10	650	350	650	SEE SPECS, PEM	DDC-5	VAV	1-HWC-010B	650	27	2.8	180	160	55	92.6	0.59	2.6	2	9	9	8	-	ACCUVALVE	COOLING/BACK-UP HEAT FOR PEM SVC AREAS
1S-SAV-16-011	3RD FLOOR - PACU	ISOL SUITE - 3B-155, 155A, 156	3	1S-AC-8 / EF-16	10	600	600	n/a	SEE SPECS	DDC	CV	1-HWC-011	600	26	2.7	180	160	55	94	0.51	2.4	2	9	9	8	-	ACCUVALVE	IN 3RD FLR CEILING, NOT IN PEM/SURGERY AREA
1S-EAV-16-011	3RD FLOOR - PACU	ISOL SUITE - 3B-155, 155A, 156	3	1S-AC-8 / EF-16	10	950	950	n/a	SEE SPECS	DDC	CV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ACCUVALVE	IN 3RD FLR CEILING, NOT IN PEM/SURGERY AREA
1S-SAV-16-012	3RD FLOOR - PRE-OP	ISOL SUITE - 3B-188, 189, 189A	4A	1S-AC-10 / EF-16	10	550	550	n/a	SEE SPECS	DDC	CV	1-HWC-012	550	25	2.6	180	160	55	95.5	0.44	2.2	2	9	9	8	-	ACCUVALVE	IN 3RD FLR CEILING, NOT IN PEM/SURGERY AREA
1S-EAV-16-012	3RD FLOOR - PRE-OP	ISOL SUITE - 3B-188, 189, 189A	4A	1S-AC-10 / EF-16	10	900	900	n/a	SEE SPECS	DDC	CV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ACCUVALVE	IN 3RD FLR CEILING, NOT IN PEM/SURGERY AREA
NOTES: 1. BASIS OF DESIGN INDICATED FOR REFERENCE OF QUALITY AND PERFORMANCE. SUBMIT EQUIVALENT PRODUCTS AND MANUFACTURERS FOR REVIEW AS REQUIRED BY SPECIFICATIONS. BASIS OF DESIGN INCLUDES INTEGRAL DDC CONTROLLER WITH EIA-485 PORT SUPPORTING BACNET MS/TP INTEGRATION. 2. REFER TO SPECIFICATIONS, CONTROL DIAGRAMS AND CONTROL SEQUENCES OF OPERATION FOR ADDITIONAL REQUIREMENTS ASSOCIATED WITH THE AIR TERMINAL UNITS AND THEIR INTEGRATION WITH THE BUILDING AUTOMATION SYSTEM (BAS) FOR APPROPRIATE AIRFLOW AND TEMPERATURE CONTROL OF EACH SPACE SERVED. 3. SUPPLY AIR VALVES WITHIN PEM / DOWNSTREAM OF AHU HEPA FILTERS SHALL BE STAINLESS STEEL/MATCH ASSOCIATED SUPPLY AIR DUCTWORK. SUPPLY AIR VALVES OUTSIDE OF PEM AND ALL RETURN/EXHAUST AIR VALVES MAY BE GALVANIZED STEEL OR ALUMINUM CONSTRUCTION. 4. DUCT-MOUNTED REHEAT COILS WITHIN PEM SHALL BE COPPER FINIS AND COPPER TUBES AS PER SPECIFICATIONS FOR SURGERY SUITE SERVICE.																												

SOUND ATTENUATING DEVICE SCHEDULE																			
MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	TYPE	AIRFLOW	APD	DUCT WIDTH	DUCT DEPTH	LENGTH	DYNAMIC INSERTION LOSS DB OCTAVE BAND AND MID-FREQUENCY (CPS)								BASIS OF DESIGN (OR APPROVED EQUAL)	REMARKS
					CFM	IN WG	IN	IN	IN	63	125	250	500	1000	2000	4000	8000		
1S-SAD-16-01	1S - PEM	1S - 3RD FLR SURGERY SUITE	1S-AC-16 BRANCH SUPPLY DUCT	RECTANGULAR	+5000	0.33	36	24	36	7	8	17	20	13	11	9	8	IAC PACKLESS - XL	DUCT MOUNTED
1S-SAD-16-02	1S - PEM	1S - 3RD FLR SURGERY SUITE	1S-AC-16 BRANCH SUPPLY DUCT	RECTANGULAR	+4500	0.27	36	24	36	7	8	17	20	13	11	9	8	IAC PACKLESS - XL	DUCT MOUNTED
1S-SAD-16-03	1S - PEM	1S - 3RD FLR SURGERY SUITE	1S-AC-16 BRANCH SUPPLY DUCT	RECTANGULAR	+3000	0.12	36	24	36	8	8	16	19	12	11	9	8	IAC PACKLESS - XL	DUCT MOUNTED
1S-SAD-16-04	1S - PEM	1S - 3RD FLR SURGERY SUITE	1S-AC-16 BRANCH SUPPLY DUCT	RECTANGULAR	+4350	0.25	36	24	36	7	8	16	20	12	11	9	8	IAC PACKLESS - XL	DUCT MOUNTED
1S-SAD-16-05	1S - PEM	1S - 3RD FLR SURGERY SUITE	1S-AC-16 BRANCH SUPPLY DUCT	RECTANGULAR	+5800	0.45	36	24	36	7	8	17	21	13	11	9	8	IAC PACKLESS - XL	DUCT MOUNTED
1S-SAD-16-06	1S - PEM	1S - 3RD FLR SURGERY SUITE	1S-PEM RETURN RISER - OR-2	RECTANGULAR	-1600	0.14	24	18	36	8	9	16	19	12	11	9	7	IAC PACKLESS - XL	DUCT MOUNTED
1S-SAD-16-07	1S - PEM	1S - 3RD FLR SURGERY SUITE	1S-PEM RETURN RISER - OR-1	RECTANGULAR	-2100	0.13	24	24	36	8	9	16	19	12	11	9	7	IAC PACKLESS - XL	DUCT MOUNTED
1S-SAD-16-08	1S - PEM	1S - 3RD FLR SURGERY SUITE	1S-PEM RETURN RISER - OR-6	RECTANGULAR	-3100	0.13	36	24	36	8	9	16	19	12	11	9	7	IAC PACKLESS - XL	DUCT MOUNTED
1S-SAD-16-09	1S - PEM	1S - 3RD FLR SURGERY SUITE	1S-PEM RETURN RISER - HYB CTRL	RECTANGULAR	-250	0.03	12	12	36	8	8	15	18	11	11	9	8	IAC PACKLESS - XL	DUCT MOUNTED
1S-SAD-16-10	1S - PEM	1S - 3RD FLR SURGERY SUITE	1S-PEM RETURN RISER - STRG	RECTANGULAR	-1750	0.16	24	18	36	8	9	16	19	12	11	9	7	IAC PACKLESS - XL	DUCT MOUNTED
1S-SAD-16-11	1S - PEM	1S - 3RD FLR SURGERY SUITE	1S-PEM RETURN RISER - CORR	RECTANGULAR	-3050	0.12	36	24	36	8	9	16	19	12	11	9	7	IAC PACKLESS - XL	DUCT MOUNTED
1S-SAD-16-12	1S - PEM	1S - 3RD FLR SURGERY SUITE	1S-PEM RETURN RISER - OR-4	RECTANGULAR	-2100	0.13	24	24	36	8	9	16	19	12	11	9	7	IAC PACKLESS - XL	DUCT MOUNTED
1S-SAD-16-13	1S - PEM	1S - 3RD FLR SURGERY SUITE	1S-PEM RETURN RISER - OR-3	RECTANGULAR	-2100	0.13	24	24	36	8	9	16	19	12	11	9	7	IAC PACKLESS - XL	DUCT MOUNTED
1S-SAD-16-14	1S - PEM	1S - 3RD FLR SURGERY SUITE	1S-PEM RETURN RISER - OR-5	RECTANGULAR	-4100	0.22	36	24	36	8	9	16	19	12	11	9	7	IAC PACKLESS - XL	DUCT MOUNTED
NOTES: 1. BASIS OF DESIGN INDICATED FOR REFERENCE OF QUALITY AND PERFORMANCE. SUBMIT EQUIVALENT PRODUCTS AND MANUFACTURERS FOR REVIEW AS REQUIRED BY SPECIFICATIONS. 2. PACKLESS, STAINLESS STEEL FOR ALL PEM / AC-16 SUPPLY AIR SOUND ATTENUATORS. PACKLESS, GALVANIZED STEEL FOR ALL PEM / RF-16 RETURN AIR SOUND ATTENUATORS.																			

AIR FILTER SCHEDULE													
MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	MERV RATING	AIR FLOW	APD		HOUSING TYPE	CARTRIDGES			BASIS OF DESIGN (OR APPROVED EQUAL)	REMARKS
						INITIAL	CHANGE OVER		#	SIZE, DEPTH	ARRANGEMENT		
					CFM	IN	IN	IN					
1S-PF-16A	BLDG 1S ROOFTOP PEM, AC-16	1S 3RD FLR SURGERY SUITE	1S-AC-16 - SUPPLY	8	28000	0.10	0.50	HOLDING FRAME	16	24X24X4	4H X 4W	FLANDERS - PREPLEAT 40 LPD	-
1S-PF-16B	BLDG 1S ROOFTOP PEM, AC-16	1S 3RD FLR SURGERY SUITE	1S-AC-16 - SUPPLY	14	28000	0.32	0.75	HOLDING FRAME	16	24X24X12	4H X 4W	FLANDERS - SUPERFLOW-V	-
1S-FF-16	BLDG 1S ROOFTOP PEM, AC-16	1S 3RD FLR SURGERY SUITE	1S-AC-16 - SUPPLY	17 / HEPA	28000	1.18	2.50	304 SS HOLDING FRAME	16	24X24X12	4H X 4W	FLANDERS - ALPHA 2000 WITH PUREFORM MEDIA	MODEL 0-007-W-08-03-SU-12-00-GGF
1S-FF-10	BLDG 1S 3RD FLR MER - RM 3B-126	1S 3RD FLR PRE-OP SUITE	1S-AC-10 - SUPPLY	14	8000	0.36	0.75	SIDE ACCESS GALV HOUSING	2	24X24X12	1H X 2W	FLANDERS - SUPERLOW-V	MODEL SS-2-20H20W
1S-PF-11	BLDG 1S 3RD FLR TEMP GAS RM	1S 3RD FLR TEMP GAS STRG	1S-EF-11 - MAKE-UP	8	425	0.03	0.25	SIDE ACCESS GALV HOUSING	2	12X24X4	1H X 2W	FLANDERS SUPRELEAT W/PREPLEAT 40 LPD	MODEL SP-4-05H20W
NOTES:													
1. BASIS OF DESIGN INDICATED FOR REFERENCE OF QUALITY AND PERFORMANCE. SUBMIT EQUIVALENT PRODUCTS AND MANUFACTURERS FOR REVIEW AS REQUIRED BY SPECIFICATIONS.													
2. NEW AC-10 FINAL FILTER (DOWNSTREAM OF AHU SUPPLY FAN/PRIOR TO PATIENT AREAS): 16 GA. GALV. STEEL HOUSING WITH ACCESS DOORS EACH SIDE. PROVIDE INITIAL AND SPARE SET OF FILTER ELEMENTS, PROVIDE DWYER MAGNEHELIC GAGE AND AG-605 KIT FOR FIELD INSTALLATION.													
3. MAKE-UP AIR FILTER ASSEMBLY TO BE MOUNTED IN TEMPORARY LOUVER AT BOTTOM OF EXISTING WINDOW OPENING. INCLUDE BAROMETRIC DAMPER WEIGHTED TO OPEN WHEN EF-11 RUNS AND WIREMESH SCREEN AT INLET OPENING TO ROOM. REMOVE/TURN OVER TO OWNER DURING PHASE 4B.													
4. REFER TO PLANS, DETAILS, SPECIFICATIONS AND CONTROL DIAGRAMS FOR ADDITIONAL INFORMATION REGARDING SURGERY ADMIN AREA AIR HANDLING UNIT ASSEMBLY.													

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

PUMP SCHEDULE																					
MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	TYPE	CIRCULATING FLUID							MIN % EFF	ELECTRICAL MOTOR							BASIS OF DESIGN (OR APPROVED EQUAL)	REMARKS
					FLUID	GLY	GLY	FLOW	HEAD	NPSH REQUIRED	TEMPERATURE RANGE		NOMINAL POWER	PHASE	VOLT	MAX RPM	EFFICIENCY	EMERGENCY POWER	SPEED CONTROL		
						TYPE	VOL %	GPM	FT	FT	°F										
1S-P-16A	3RD FLOOR ROOF - PEM (1S-HTPS-16)	1S 3RD FLR SURGERY SUITE	HEATING HOT WATER (REHEAT)	END SUCTION	HOT WATER	---	---	125	25	3.1	160-180	68.2	1.5	3	460	1800	PREMIUM	YES	VFD	BELL & GOSSETT 1510 2-12AB	.
1S-P-16B	3RD FLOOR ROOF - PEM (1S-HTPS-16)	1S 3RD FLR SURGERY SUITE	HEATING HOT WATER (REHEAT)	END SUCTION	HOT WATER	---	---	125	25	3.1	160-180	68.2	1.5	3	460	1800	PREMIUM	YES	VFD	BELL & GOSSETT 1510 2-12AB	REDUNDANT PUMP
NOTES: 1. BASIS OF DESIGN INDICATED FOR REFERENCE OF QUALITY AND PERFORMANCE. SUBMIT EQUIVALENT PRODUCTS AND MANUFACTURERS FOR REVIEW AS REQUIRED BY SPECIFICATIONS. 2. PUMPS ARE PART OF FACTORY FABRICATED/MANUFACTURED HEATING HOT WATER GENERATION/DISTRIBUTION SKID PACKAGE. 1S-HTPS-16. PACKAGE SHALL INCLUDE PUMPS, HEAT EXCHANGER, EXPANSION TANK, AIR SEPARATOR, CHEM TREATMENT, VFD'S, CONTROL VALVES, ETC. 3. REFER TO DETAILS, SPECIFICATIONS, CONTROL DIAGRAMS AND SEQUENCES OF OPERATION FOR ADDITIONAL REQUIREMENTS ASSOCIATED WITH THE PACKAGED HEAT TRANSFER AND PUMPING SYSTEM AND ITS INTEGRATION WITH THE BUILDING AUTOMATION SYSTEM (BAS) FOR APPROPRIATE HEATING HOT WATER (REHEAT) FLOW AND TEMPERATURE CONTROL.																					

EXPANSION TANK SCHEDULE																		
MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	TYPE	APPROX SYSTEM VOLUME	SYSTEM TEMPERATURE		INITIAL PRESSURE IN TANK	MAX OPERATING PRESSURE	FILL PRESSURE AT TANK		MIN VOLUME TANK	MIN ACCEPTANCE VOLUME	PIPE SIZE TO TANK	COLD WATER FILL SIZE	BASIS OF DESIGN (OR APPROVED EQUAL)	REMARKS	OPERATING WEIGHT
						MIN	MAX			RELIEF VALVE	AT TANK							
					GAL	°F	°F	PSIG	PSIG	PSIG	PSIG	GAL	GAL	IN	IN			
1S-ET-16	3RD FLOOR ROOF - PEM (1S-HTPS-16)	1S 3RD FLR SURGERY SUITE	HEATING WATER (REHEAT)	BLADDER	410	160	180	12	125	-	-	27.6	11.3	3/4	1	BELL & GOSSET D-60	HORIZONTAL	385 LBS.
NOTES: 1. BASIS OF DESIGN INDICATED FOR REFERENCE OF QUALITY AND PERFORMANCE. SUBMIT EQUIVALENT PRODUCTS AND MANUFACTURERS FOR REVIEW AS REQUIRED BY SPECIFICATIONS. 2. EXPANSION TANK IS PART OF FACTORY FABRICATED/MANUFACTURED HEATING HOT WATER GENERATION/DISTRIBUTION SKID PACKAGE. 1S-HTPS-16. PACKAGE SHALL INCLUDE PUMPS, HXR, EXP TANK, AIR SEPAR, CHEM TREATMENT, VFD'S, CONTROL VALVES, ETC. 3. REFER TO DETAILS, SPECS, CONTROL DIAGRAMS AND CONTROL SEQUENCES OF OPERATION FOR ADDITIONAL REQUIREMENTS ASSOCIATED WITH THE PACKAGED HEAT TRANSFER AND PUMPING SYSTEM AND ITS NTEGRATION WITH THE BUILDING AUTOMATION SYSTEM (BAS).																		

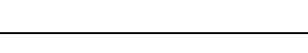



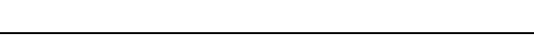
STEAM TO WATER HEAT EXCHANGER SCHEDULE															
MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	TYPE	WATER CONDITIONS				STEAM PRESSURE		STEAM CONTROL VALVE	TRAP		BASIS OF DESIGN (OR APPROVED EQUAL)	REMARKS
					FLOW	EWT	LWT	WPD	ENT CONTROL VALVE	ENT HEAT EXCHANGER		TRAP #	CAPACITY		
					GPM	°F	°F	FT	PSIG	PSIG	LBS/HR		LBS/HR		
1S-HX-16	3RD FLOOR ROOF - PEM HTPS-16)	1S 3RD FLR SURGERY SUITE	HEATING WATER (REHEAT)	SHELL & TUBE	125	160	180	1.11	12	5	1275	1	1275	BELL & GOSSETT SU 8 4-2	----
<div>NOTES:</div> <div>1. BASIS OF DESIGN INDICATED FOR REFERENCE OF QUALITY AND PERFORMANCE. SUBMIT EQUIVALENT PRODUCTS AND MANUFACTURERS FOR REVIEW AS REQUIRED BY SPECIFICATIONS.</div> <div>2. SHELL & TUBE HEAT EXCHANGER IS PART OF FACTORY FABRICATED/MANUFACTURED HEATING HOT WATER GENERATION/DISTRIBUTION SKID PACKAGE (1S-HTPS-16). PACKAGE SHALL INCLUDE PUMPS, HXR, EXP TANK, AIR SEPAR, CHEM TREATMENT, VFD'S, CONTROL VALVES, ETC.</div> <div>3. REFER TO DETAILS, SPECS, CONTROL DIAGRAMS AND CONTROL SEQUENCES OF OPERATION FOR ADDITIONAL REQUIREMENTS ASSOCIATED WITH THE PACKAGED HEAT TRANSFER AND PUMPING SYSTEM AND ITS NTEGRATION WITH THE BUILDING AUTOMATION SYSTEM (BAS).</div>															

AIR SEPARATOR SCHEDULE											
MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	TYPE	AIR SEPARATOR				BASIS OF DESIGN (OR APPROVED EQUAL)	REMARKS	OPERATING WEIGHT
					SIZE IN	FLOW	VOL	WPD			
					IN	GPM	GAL	FT			
1S-AS-16	3RD FLOOR ROOF - PEM (1S-HTPS-16)	1S 3RD FLR SURGERY SUITE	HEATING WATER (REHEAT)	TANGENTIAL	3	125	---	---	BELL & GOSSETT ROLAIR TROL RL-3	---	---
NOTES: 1. BASIS OF DESIGN INDICATED FOR REFERENCE OF QUALITY AND PERFORMANCE. SUBMIT EQUIVALENT PRODUCTS AND MANUFACTURERS FOR REVIEW AS REQUIRED BY SPECIFICATIONS. 2. AIR SEPARATOR IS PART OF FACTORY FABRICATED/MANUFACTURED HEATING HOT WATER GENERATION/DISTRIBUTION SKID PACKAGE. 1S-HTPS-16. PACKAGE SHALL INCLUDE PUMPS, HXR, EXP TANK, AIR SEPAR, CHEM TREATMENT, VFD'S, CONTROL VALVES, ETC. 3. REFER TO DETAILS, SPECS, CONTROL DIAGRAMS AND CONTROL SEQUENCES OF OPERATION FOR ADDITIONAL REQUIREMENTS ASSOCIATED WITH THE PACKAGED HEAT TRANSFER AND PUMPING SYSTEM AND ITS NTEGRATION WITH THE BUILDING AUTOMATION SYSTEM (BAS).											

HVAC SYSTEM PIPING - STEAM/STEAM CONDENSATE AND WATER (REHEAT/CHILLED WATER/DRAINS) - MATERIAL SPECIFICATIONS										
(STEAM WORKING PRESSURE: FACTORY TEST AT 1.5 TIMES DESIGN PRESSURE AT DESIGN MAX. TEMPERATURE AS PER SPEC. 23 22 13. STEAM DESIGN PRESSURES - 15 PSIG AND BELOW FOR AHU HEATING AND HUMIDIFICATION. 50-80 PSIG FOR STEAM STERILIZERS/AUTOClaves. (CHILLED WATER WORKING PRESSURE: FACTORY TEST AT 1.5 TIMES DESIGN PRESSURE AT DESIGN MAX. TEMPERATURE AS PER SPEC. 23 21 13. CHILLED WATER WORKING TEMPERATURES: 43 DEG F SUPPLY, 55 DEG F RETURN) (HEATING HOT WATER WORKING PRESSURE: FACTORY TEST AT 1.5 TIMES DESIGN PRESSURE AT DESIGN MAX. TEMPERATURE AS PER SPEC. 23 21 13. HEATING HOT WATER WORKING TEMPERATURES: 180 DEG F SUPPLY, 160 DEG F RETURN)										
PIPE SIZES	PIPE MATERIAL & SPECIFICATION	FITTING & FLANGE MATERIAL & SPECIFICATION	VALVE MATERIAL & SPECIFICATION							
3/4" - 6"	STEEL AS PER SPEC 23 22 13	SPEC. 23 22 13	SPEC. 23 22 13							
3/4" - 4"	COPPER AS PER SPEC. 23 21 13	SPEC. 23 21 13	SPEC. 23 21 13							
PIPING INSULATION SCHEDULE & SPECIFICATIONS										
PIPE/TUBE MATERIAL	PIPE/TUBE SIZE	SYSTEM	INSULATION, JACKET AND TYPE	INSULATION THICKNESS PER PIPE SIZE						REMARKS (SEE NOTES, PLANS AND SPEC.)
				≤0.75	1	1.5	2	2.5	≤3	
STEEL	3/4" TO 4"	STEAM/STEAM CONDENSATE (HEATING HOT WATER GENERATION, AHU UNIT HEATERS, AHU PREHEAT & HUMIDIFICATION)	MINERAL FIBER WITH TWO INSERT LAYERS FOR PVC PRE-MOLDED FITTING COVERING AS SPEC'D	2.5"	2.5"	3"	3"	3"	3"	ASTM C547, MAX TEMP. 450 DEG F. PROVIDE ALUMINUM JACKET ON EXPOSED PIPING BELOW 6'-0" AFF IN PENTHOUSE EQUIP MODULE AND MECH EQUIP ROOMS.
STEEL	3/4" TO 1 1/2"	STEAM/STEAM CONDENSATE (STERILIZERS/AUTOClaves)	MINERAL FIBER WITH TWO INSERT LAYERS FOR PVC PRE-MOLDED FITTING COVERING AS SPEC'D	3"	4"	4.5"	4.5"	4.5"	4.5"	ASTM C547, MAX TEMP. 450 DEG F. PROVIDE ALUMINUM JACKET ON EXPOSED PIPING BELOW 6'-0" AFF IN STERILIZER/AUTOClave EQUIPMENT SERVICE AREA.
STEEL	3/4" TO 6"	AHU CHILLED WATER (INDOOR AND OUTDOOR)	CELLULAR GLASS, ALL-SERVICE VAPOR RETARDER JACKET WITH PVC PRE-MOLDED FITTING COVERING	2"	2"	3"	3"	3"	3"	ASTM C177, C518, MAX TEMP. 400 DEG F. PROVIDE ALUMINUM JACKET W/VAPOR BARRIER ON ALL OUTDOOR PIPING ROOF AND ALL EXPOSED PIPING BELOW 6'-0" AFF WITHIN PENTHOUSE EQUIPMENT MODULE
COPPER	3/4" TO 4"	AHU CHILLED WATER, AHU DRAINS, PEM FLOOR DRAIN EXTENSIONS THROUGH PEM FLOOR (INDOOR)	CELLULAR GLASS, ALL-SERVICE VAPOR RETARDER JACKET WITH PVC PRE-MOLDED FITTING COVERING	2"	2"	3"	3"	3"	3"	ASTM C177, C518, MAX TEMP. 400 DEG F. PROVIDE ALUMINUM JACKET W/VAPOR BARRIER ON EXPOSED PIPING BELOW 6'-0" AFF IN NEW PEM AND MECH EQUIP ROOMS.
COPPER	3/4" TO 4"	HEATING HOT WATER (REHEAT)	MINERAL FIBER, ALL-SERVICE VAPOR RETARDER JACKET WITH PVC PRE-MOLDED FITTING COVERING	1.5"	1.5"	2"	2"	2"	2"	ASTM C547, MAX TEMP. 450 DEG F. PROVIDE ALUMINUM JACKET ON EXPOSED PIPING BELOW 6'-0" AFF IN PENTHOUSE EQUIP MODULE AND MECH EQUIP ROOMS.
NOTES: 1. CONTRACTOR SHALL INSULATE ALL EXISTING TO REMAIN & NEW PIPING, FITTINGS, VALVES, EQUIPMENT, ETC. REFER TO SPECIFICATIONS FOR INSULATION REQUIREMENTS FOR SYSTEMS BOTH LISTED AND NOT LISTED ABOVE. 2. CONTRACTOR SHALL SUPPORT ALL PIPING IN ACCORDANCE WITH SPEC. SECTION 230511 AND COORDINATE PLACEMENT OF PIPING ON SUPPORTS AS REQUIRED TO PROPERLY INSTALL INSULATION. ALL EXISTING INSULATION IS TO BE REMOVED/REPLACED. 3. CONTRACTOR SHALL INSTALL ALL INSULATION AND JACKETING PER THE MANUFACTURER'S RECOMMENDATIONS. COORDINATE PIPING PAINTING/APPLICATION OF ELECTRIC HEAT TRACE PRIOR TO INSULATING OUTDOOR PIPING AS REQUIRED/SPECIFIED. 4. CONTRACTOR SHALL INSTALL INSULATION PROTECTION SHIELDS AT ALL SUPPORT LOCATIONS, UNLESS NOTED OTHERWISE. 5. ALL INSULATION AND JACKETING MATERIAL SHALL HAVE A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50 (ASTM E-84).										

RADIANT CEILING PANEL SCHEDULE (HYDRONIC)										
MARK	ROOM LOCATION	AREA AND/OR ROOM SERVED	PANEL SIZE	HEATING					BASIS OF DESIGN (OR APPROVED EQUAL)	REMARKS
				HEATING CAPACITY	EWT	LWT	HOT WATER FLOW RATE	WPD		
				IN	BTUH	°F	°F	GPM		
1S-RCP-08-001	3RD FLR -	PACU - 3B-151	12 x 48	955	180	179	1.5	0.08	AIR TITE	EXTRUDED ALUMINUM PANEL
1S-RCP-08-002	3RD FLR -	PACU - 3B-151	12 x 48	941	179	177	1.5	0.08	AIR TITE	EXTRUDED ALUMINUM PANEL
1S-RCP-08-003	3RD FLR -	PACU - 3B-151	12 x 48	926	177	176	1.5	0.08	AIR TITE	EXTRUDED ALUMINUM PANEL
1S-RCP-08-004	3RD FLR -	PACU - 3B-151	12 x 48	912	176	175	1.5	0.08	AIR TITE	EXTRUDED ALUMINUM PANEL
1S-RCP-08-005	3RD FLR -	PACU - 3B-151	12 x 48	899	175	174	1.5	0.08	AIR TITE	EXTRUDED ALUMINUM PANEL
1S-RCP-08-006	3RD FLR -	PACU - 3B-151	12 x 48	885	174	173	1.5	0.08	AIR TITE	EXTRUDED ALUMINUM PANEL
1S-RCP-08-007	3RD FLR -	PACU - 3B-151	12 x 48	872	173	171	1.5	0.08	AIR TITE	EXTRUDED ALUMINUM PANEL
1S-RCP-08-008	3RD FLR -	PACU - 3B-151	12 x 48	858	171	170	1.5	0.08	AIR TITE	EXTRUDED ALUMINUM PANEL
NOTES:										
1. BASIS OF DESIGN INDICATED FOR REFERENCE OF QUALITY AND PERFORMANCE. SUBMIT EQUIVALENT PRODUCTS AND MANUFACTURERS (AEROTECH) FOR REVIEW AS REQUIRED BY SPECIFICATIONS.										
2. PANELS SHALL BE SMOOTH FACE DESIGN SUITABLE FOR HOSPITAL/PACU/RECOVERY ENVIRONMENTS. PANELS ARE INTENDED TO BE PIPED IN SERIES/SERVE LARGE OPEN BAY AREA. SEE PLANS/DETAIL.										

100% CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

									Drawing Title MECHANICAL SCHEDULES			Project Title RENOVATE SURGICAL SERVICE & UPGRADE OPERATING ROOMS			Project Number 581-13-101			Office of Construction and Facilities Management								
									Approved: Medical Center Director			Location HUNTINGTON, WV			Building Number 1S											
												Date 10.31.2014			Checked MPP						Drawing Number M6.03					
															Drawn JLR						Dwg. 075 of 178					
CONSULTANTS:						ARCHITECT / ENGINEERS:															Department of Veterans Affairs					
NO. DESCRIPTION DATE						 COMMONWEALTH OF VIRGINIA REGISTERED PROFESSIONAL THOMAS L. CHAPMAN ENGINEER NO. PE040433R 			 Miller Remick LLC M.E.P. & Structural Engineering A Service Disabled Veteran Owned Small Business 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW JERSEY 08034 PHONE: (856)425-4500 FAX: (856)425-5052			 SDVOB cVe			 PF&A PF&A DESIGN ARCHITECTURE, PLANNING, INTERIORS World Trade Center 101 West Main Street, Suite 7000 Norfolk, VA 23510 Phone: 757-471-0537 Fax: 757-471-4209 www.pfs-architect.com											